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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,384

05/22/2006

Martin Glos

2003DE448

2556

25255

7590

07/22/2009

CLARIANT CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
4000 MONROE ROAD  
CHARLOTTE, NC 28205

EXAMINER

VALENROD, YEVGENY

ART UNIT

PAPER NUMBER

1621

MAIL DATE

DELIVERY MODE

07/22/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/580,384	<b>Applicant(s)</b> GLOS, MARTIN	
	<b>Examiner</b> YEVEGENY VALENROD	<b>Art Unit</b> 1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/18/06; 5/22/06</u> .                                       | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

The following is a first office action in application # 10/580,384.

#### ***Specification***

The disclosure is objected to because of the following informalities: The continuity data is not present in the first paragraph of the specification.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite a limitation “reactive derivative thereof” (for example line 3 of claim 1). The scope of this term is unclear. Specification fails to provide a limiting definition of the term “reactive derivative”. The issue of indefiniteness arises when the possibilities of how one might interpret the term “reactive derivative” are considered. For example, the reactive moiety need not be a derivative of the acid functionality or the derivative might be reactive but not under esterification conditions. The specification only provides examples where either an acid or a methyl ester is used as starting material and does not provide a definition of the broader term.

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In order to advance the prosecution examiner will interpret the term "reactive derivative" to include only those derivatives of the carboxylic acid functionality which are capable of undergoing a substitution reaction with an alcohol as to result in an ester functionality.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knebel et al. (US 6,040,473) in view of Hintze-Bruning et al. (US 6,297,314).

Instant claims are directed to an esterification or transesterification process wherein an alcohol is reacted with a carboxylic acid, ester or other active derivative in the presence of an oxazoline of formula (1).

*Scope of prior art*

Knebel et al teach a transesterification process for the preparation of polyglycol(meth)acrylates (see Example 1, column 4). Knebel et al therefore meet the limitations of the instant claims which are directed to alcohol and unsaturated carboxylic acid derivative being present in solution and a reaction comprising the above two substrates to form a new ester. In column 3, lines 28-31, Knebel et al teach :

"It is urgently recommended that at least one stabilizing agent of the radical scavenger type also be used in order to stop polymerization of the compounds capable of polymerization which are present in the reaction batch"

Ascertaining the difference between prior art and instant claims

Knebel et al are deficient in that they fail to teach an oxazoline compound being used as a radical scavenger.

Secondary reference

Hintze-Bruning et al. teach use of light stabilizers as additives in coating agents (column 1, lines 5-15, particularly sections d) and e)). Hintze-Bruning et al. also teach oxazolines as light stabilizers (column 1, lines 54-56).

Obviousness

There are two well known types of light stabilizers, ones that absorb UV radiation and ones that act as radical scavengers. Oxazolines are of the later kind. It can therefore be interpreted that the teaching of Hintze-Bruning et al. directed to oxazoline being a light stabilizer provides a teaching of oxazoline as a radical scavenger.

In view of recommendation of Knebel et al. to use a radical scavenger in their process, one skilled in the art would find it obvious to select a radical scavenger from

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compounds that have been described in the art to act as radical scavengers. According to Hintze-Bruning et al oxazolines are radical scavengers. One skilled in the art at the time the instant invention was made would have found it obvious to use any oxazoline as a radical scavenger in the process of Knebel et al. Both motivation and expectation of success are provided by Knebel et al when they “urgently recommend” using a radical scavenger. The expected result of following the recommendation of Knebel et al. is reduced formation of polymers, which is what the applicant in the instant application has observed.

Limitations directed to the amount of oxazoline added to the reaction mixture are obvious because they represent something that one skilled in the art would determine through routine experimentation. The motivation to perform the said routine experimentation is provided by the desire to optimize the reaction conditions in order to develop the most efficient method of carrying out the process. Limitations directed to the amounts of the reagents are therefore obvious absent unexpected results.

### ***Conclusion***

Claims 1-6 are pending.

Claims 1-6 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yevgeny Valenrod whose telephone number is 571-272-9049. The examiner can normally be reached on 8:30am-5:00pm M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Sullivan can be reached on 571-272-0779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yevgeny Valenrod/

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Yevgeny Valenrod  
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